

C L A I M S

1. A method of inhibiting marine organisms, such as acorn barnacles or mussels, for example, from settling on a solid surface by applying on said surface at least one active substance that inhibits biofouling, characterized by selecting as said at least one active substance a substance that is toxic in high doses but will convert into a substance that is necessary for said organism and is functional in low doses, and – to inhibit biofouling by an oxygen dependent organism – selecting as said at least one active substance a substance that on one hand holds back transport of hydrogen (electrons and protons) to oxygen (which is a prerequisite of the formation of energy in nerve and muscle cells and, thereby, their activity, which is a prerequisite of a settling), and on the other hand will be used after conversion by the oxygen dependent organism.
2. A method as claimed in claim 1, characterized by selecting as said at least one hydrogen transport holding back substance at least one of nicotine and selenium in atomic form, $\text{Se}(0)$, or substances that can be converted into them (nornicotine or other nicotine derivatives, myoamine, anabasin, selenite, selenate, etc.).
3. A method as claimed in any one of claims 1–2, wherein said solid surface is a marine structure.
4. A method as claimed in claim 3, wherein said solid surface is a ship hull.
5. A method as claimed in claim 3, wherein said solid surface is a pipe conduit in sea water.
6. A surface treatment agent for application on a solid surface for inhibiting the settling of marine organisms, such as crustaceans (acorn barnacles) or mussels, for example, on said surface, said surface treatment agent including a mixture of at least one active substance that inhibits biofouling and a carrier for the active substance, characterized in that as said at least one active substance a substance is selected that is toxic in high doses but will convert into a substance that is necessary for said organism and is functional in low doses, and that it on one hand holds back transport of hydrogen (electrons and protons) to oxygen (which is a prerequisite of the formation of energy in nerve and

muscle cells and, thereby, their activity, which is a prerequisite of a settling), and on the other hand will be used after conversion by the oxygen dependent organism.

- 5 7. A surface treatment agent as claimed in claim 6, characterized in that said as said at least one hydrogen transport holding back substance at least one of nicotine and selenium in atomic form, Se(0), is selected, or substances that can be converted into them (nornicotine or other nicotine derivatives, myoamine, anabasin, selenite, selenate, etc.).
- 10 8. A surface treatment agent as claimed in any one of claims 6–7, characterized in that said carrier is a polymer that prevents the active substance from leaking out fast.
- 15 9. A surface treatment agent as claimed in claim 8, characterized in that said polymer is a paint for painting surfaces that will be exposed to marine biofouling, e.g. ship hulls and pipe conduits in sea water.